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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/654,417	09/01/00	QUAIL A	60.426-096

024500
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PM82/0719

EXAMINER	
TO, T	
ART UNIT	**PAPER NUMBER**
3661	7

DATE MAILED: 07/19/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary	Application No.	Applicant(s)	
	09/654,417	QUAIL ET AL.	
	Examiner	Art Unit	
	Tuan C To	3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-28 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-28 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 and 6 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

Claim Rejections - 35 USC § 112

2 The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 27 and 28 are rejected under 35 U.S.C. 112 (second paragraph) as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 27: The limitation "fuzzy logic analysis process includes the steps of creating member ship functions by assigning names to predetermined values within a designated range" was held to be indefinite since it was not clear what applicant intended to cover "assigning names to predetermined values within a designated range". Applicant needs to revise the claim or clarify the unclear feature in order to define more clearly the invention.

Claim 28: Applicant also needs to clarify the limitation "the processing unit with a neural network for learning vehicle characteristics unique to vehicle type" because it is written in a form that does not describe a specific feature of the invention.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-12, 15-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. et al. (U.S. 5626359) in view of Stanley (U.S. 6220627).

Claims 1, 4, 8-12, 15-21: Steffens, Jr. et al. disclose a system and a method for controlling an occupant restraint system as claimed (See abstract; Fig. 2; columns 1-4, lines 1-67) except for a child seat sensor for generating a child seat position signal indicating whether a child seat is properly installed within said predetermined area. Stanley discloses the other occupant detection system, wherein the child seat sensor has been taught in column 6, lines 1-40. The advantage of child seat sensor is detecting whenever the occupant is out of position or whenever the rear facing infant's seat is present. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Steffens, Jr. et al.'s and Stanley's to produce the claimed invention. With the modified system the air bag system is enabled or disabled properly according to the positions of the occupant or child infant seat.

Claims 2, 3, 5: In columns 3, lines 41-45, Stanley discloses that the "generally desirable to not activate an automatic safety restraint actuator if an associated occupant is not present because of the otherwise unnecessary costs and inconveniences associated with the replacement of a deployed air bag inflation system". Stanley discloses all features recited in those claims.

Claim 6: Steffens, Jr. et al. disclose said system and a method for controlling an occupant restraint system, wherein said at least one modifier sensor includes a seat belt usage sensor for determining whether a seat belt harness is being utilized by the occupant and wherein said modifier signal is generated as a positive modifier signal when said seat belt harness is in an engaged position and is generated as negative modifier signal when said seat belt harness is in a disengaged position (Column 2, lines 51-67; Column 3, lines 1-25; Fig. 2).

Claim 7: Steffens, Jr. et al. disclose "a web or belt payout sensor 64 is operatively connected to a seat belt retractor 66 and is electrically connected to the controller 24". Therefore, one skill in art to realize that the system of Steffens, Jr. et al. controls deployment of a seat belt retractor to reduce forward momentum of the occupant.

6. Claims 13, 14, 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Steffens, Jr. et al. (U.S. 5626359), Stanley (U.S. 6220627) and further in view of Gille (US 5468013).

Claims 13, 14, 22, and 23: Steffens, Jr. et al. and Stanley disclose the occupant restraint system with all features in the claim has been discussed in the previous

paragraph except for controlling the deflation speed of said airbag. Gille disclose the other occupant restraint system that comprises the missing feature in Steffens, Jr. et al.'s and Stanley's. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine Steffens, Jr. et al.'s, Stanley's and Gille to produce all features of the claimed. The occupant restraint system includes controlling the deflation rate would be an improvement in protecting occupant from possible injury caused by the inflation of the air bag.

Claims 24 and 25: Steffens, Jr. et al. disclose said occupant restraint system, including programming the processing unit with a fuzzy logic analysis process to generate the plurality of output signals based on the plurality of input signals before optimizing the deployment of the occupant restraint system (See abstract; Fig. 2).

Claim 26: as earlier discussion, Steffens, Jr. et al. disclose the step of generating a severity signal indicating vehicle characteristics at or after collision and generating a pre-collision signal indicating vehicle characteristics before collision (Fig. 2, 90; Column 3, lines 1-67).

Conclusion

7. All claims are rejected.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure includes the following: Breed et al. (US 6234520).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan C To whose telephone number is (703) 308-6273. The examiner can normally be reached on from 8:00AM to 5:00PM.

10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Cuchlinski can be reached on (703) 308-3873. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and none for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

/tc

July 15, 2001

WILLIAM A. CUCHLINSKI, JR.
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